

REMARKS

Claims 1-16 are pending in the present application. Claims 1, 4, 5 and 7 have been amended and claims 2, 3, 6 and 8 have been canceled by way of the present amendment. Reconsideration is respectfully requested.

In the outstanding Office Action, claims 1-16 were rejected under 35 U.S.C. Section 102(b) as anticipated by U.S. Patent Publication No. 2001/0024278A1 (Yoshida).

35 U.S.C. Section 102 Rejections

Claims 1-16 were rejected under 35 U.S.C. Section 102(b) as anticipated by Yoshida. Applicant respectfully traverses the rejection.

The outstanding rejection includes rejections based on anticipation. “Anticipation under 35 USC §102(e) requires that ‘each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.’” *In re Robertson*, 49 USPQ 1949, 1950 (Fed.Cir. 1999).

“[A]ll words in the claim must be considered in judging the patentability of the claim against the prior art.” *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970). As set forth in section 2111 of the MPEP, “claims are interpreted in the broadest reasonable fashion *consistent with the specification*.” (Emphasis added). The Patent and Trademark Office *is required* to take into account whatever enlightenment is afforded by the specification, *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ 2d 1023, 1027-28 (Fed. Cir. 1997). (Emphasis added).

In addition, Applicants note that anticipation requires the disclosure, in a prior art reference, of each and every limitation as set forth in the claims.¹ *There must be no difference between the claimed invention and reference disclosure* for an anticipation rejection under 35

¹ *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985).

U.S.C. §102² (emphasis added). To properly anticipate a claim, the reference must *teach every element of the claim* (emphasis added).³ “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference”.⁴ “The identical invention must be shown in as complete detail as is contained in the ...claim.”⁵ In determining anticipation, no claim limitation may be ignored.⁶

Applicants respectfully submit the applied art does not meet this threshold burden. In particular, the outstanding Office Action asserts that Yoshida discloses all the claimed limitations. Specifically, Applicants respectfully submit that Yoshida does not disclose the recited “wherein a segment of a Y mark and a segment of the X mark are removed, wherein each segment removed corresponds to regions of the X mark and Y mark that cause false alignments” of the claimed invention. Thus, Yoshida cannot anticipate the invention.

In addition, as stated above, “there must be no difference between the claimed invention and reference disclosure.” Applicants respectfully submit that Yoshida does not disclose “wherein the segments of different orientation are located from $\pm 45^\circ$ to $\pm 90^\circ$ relative to the X mark and the Y mark” that is compatible with modern CMOS technologies. Thus, there is a “difference between the claimed invention and the referenced disclosure” of Yoshida.

Claim 1 has been amended to clarify the invention. In particular, claim 1 has been amended to include the limitations of canceled claims 2, 3, 6 and 7. In addition, claims 4, 5 and 7 have been amended to depend upon claim 1. It is respectfully submitted that the amendments find support in the original claims and therefore, no question of new matter is raised by the amendments.

Yoshida discloses a position detecting method and apparatus that includes an extracting unit that extracts a domain regarding the relative position between a predetermined template and an observation result to be obtained by observing a mark by using an observing unit in which the

² *Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991).

³ See MPEP § 2131.

⁴ *Verdegaal Bros. v. Union Oil Co. of Calif.*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

⁵ *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

distribution of correlation coefficients between the observation result and the predetermined template has a single peak from the observation result.⁷ In particular, Yoshida discloses a mark **MX** for detecting the position in the X-direction and a mark **MY** for detecting the position in the Y-direction to be formed onto a street line around a shot area **SA** on the wafer **W** are used as alignment marks.⁸

However, Yoshida nowhere discloses, as recited in claim 1,

wherein a segment of a Y mark and a segment of the X mark are removed, and

wherein each segment removed corresponds to regions of the X mark and Y mark that cause *false alignments* (emphasis added).

That is, though Yoshida discloses what is referred to as a “pattern forbidden band,” Yoshida nowhere discloses the concept of removing regions that cause “false alignments,” as recited in claim 1. In fact a word search of Yoshida nowhere reveals the phrase “false alignment,” or any phrase similar in meaning. Thus, Yoshida does not disclose the claimed invention.

In addition, it is respectfully submitted that Yoshida nowhere discloses the limitations of recited in claim 10 of: “wherein the segments of different orientation are located from $\pm 45^\circ$ to $\pm 90^\circ$ relative to the X mark and the Y mark.” Thus, Yoshida does not disclose the claimed invention.

Further, Yoshida nowhere discloses, as recited in claims 11 and 14:

selecting an aligned position of the Y mark in the Y-direction in accordance with the single aligned position that corresponds to the location of the approximate center of an X mark in a Y mark.

Thus, Yoshida does not disclose the claimed invention of independent claims 11 and 14.

⁶ *Pac-Tex, Inc. v. Amerace Corp.*, 14 USPQ2d 187 (Fed. Cir. 1990).

⁷ Yoshida at ABSTRACT.

⁸ *Id.* at FIG. 2A; paragraph 65, lines 1-5, lines 53-56.

Therefore, at least for the reasons above, it is respectfully submitted that Yoshida does not disclose, anticipate or inherently teach the claimed invention and that independent claims 1, 11 and 14, and claims dependent thereon, patentably distinguish thereover.

Conclusion

Based on the above amendments and arguments, Applicant respectfully submits that the application is in condition for allowance. If a fee is due, please charge Deposit Account No. 22-0185, under Order No. 21806-00157-US, from which the undersigned is authorized to draw.

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Respectfully submitted,

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